

REMARKS/ARGUMENTS

In the Office Action mailed December 5, 2008, claims 1-20 were rejected. Additionally, the specification was objected to. Additionally, the drawings were objected to. Additionally, claim 5 was objected to. In response, Applicants hereby request reconsideration of the application in view of the amendments and the below-provided remarks. No claims are added or canceled.

For reference, claims 1-20 are amended. In particular, claim 1 is amended to recite the incoming signal includes a data frame with a preamble and a payload within a single frequency band. Claim 1 is also amended to recite the detector is configured to detect the sequence within the preamble of the data frame. Claims 7 and 14 are amended to recite similar language. These amendments are supported, for example, by the subject matter described at page 3, line 20, through page 4, line 2, of the specification of the present application. Claims 2-6, 8-13, and 15-20 are each amended to clarify the language of the claims and/or to improve the formatting of the claims. Claims 5 and 6 are also amended to depend from claim 1. These amendments are supported by the original language of the claims.

Objections to the Drawings

The current application is a U.S. National Stage application. The labeling of figures with text matter is prohibited under PCT Rule 11.11, except when absolutely indispensable for understanding. Further, MPEP 1893.03(f) states that “[t]he USPTO may not impose requirements beyond those imposed by the Patent Cooperation Treaty (e.g., PCT Rule 11).” In the present application, Applicants submit that the addition of text labels to the drawings is not “absolutely indispensable” because the individual drawing elements are identified and described in the specification. In view of the above rules, Applicants respectfully assert that additional text labeling is not required in the drawings of the current application.

Objections to the Specification

The Office Action objects to the specification because the abstract is not on a separate sheet. By way of amendment to the specification herein, the abstract is presented on a separate sheet. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

Objections to the Claims

The Office Action objects to claim 5 for improper dependency. Claim 5 is amended to depend from claim 1, rather than from itself. Accordingly, Applicants respectfully request that the objection to claim 5 be withdrawn.

Double Patenting

Claims 1-20 appear to be rejected under 35 U.S.C. 101, 102(f), and/or 102(g) for being directed to the same invention as that of claims 1-20 of the commonly assigned co-pending application to Zhang (U.S. Pat. Pub. No. 2007/0087723, hereinafter Zhang). Upon review of Zhang, it appears that the specification and claims of Zhang are essentially a copy of the specification and claims of the present application. However, this duplication in Zhang appears to be inadvertent because Zhang includes 15 figure drawings, but the duplicated specification only describes 9 figure drawings. In other words, it appears that the duplicated specification included in Zhang does not describe the actual drawings of Zhang. Likewise, it appears that the duplicated claims included in Zhang actually correspond to the embodiments described in the present application, rather than to the drawings of Zhang.

Although it is unclear from the file histories of Zhang and the present application how Zhang came to include the duplicated specification and claims, it appears that the specification and claims of Zhang should be amended, or replaced, so as to be directed to the drawings of Zhang, rather than to the disclosure of the present application. Hence, Applicants respectfully submit that the inventors listed in the present application should be considered the inventors of the subject matter recited in the claims of the present application. Accordingly, Applicants respectfully request that the double patenting rejections of claims 1-20 be withdrawn.

Claim Rejections under 35 U.S.C. 102 and 103

Claims 1, 2, 7-9, and 14-16 were rejected under 35 U.S.C. 102(e) as being anticipated by Reiner (U.S. Pat. Pub. No. 2002/0169009, hereinafter Reiner). Additionally, claims 3, 10, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Femenias (U.S. Pat. No. 3,623,097, hereinafter Femenias). Additionally, claims 4, 11, and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Mellon (U.S. Pat. No. 4,897,659, hereinafter Mellon) and Herrmann et al. (U.S. Pat. Pub. No. 2001/0055275, hereinafter Herrmann). Additionally, claims 5, 12, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Thomas et al. (U.S. Pat. No. 5,818,822, hereinafter Thomas). Additionally, claims 13 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Schmidl et al. (U.S. Pat. No. 5,732,113, hereinafter Schmidl). Additionally, claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Thomas, and further in view of Schmidl. However, Applicants respectfully submit that these claims are patentable over Reiner, Femenias, Mellon, Herrmann, Thomas, and Schmidl for the reasons provided below.

Independent Claim 1

Claim 1 recites “the incoming signal comprises a data frame with a preamble and a payload within a single frequency band, and the detector is configured to detect the sequence within the preamble of the data frame” (emphasis added).

In contrast, Reiner does not disclose all of the limitations of the claim because Reiner does not disclose a data frame with a preamble (including the sequence) and a payload within a single frequency band. Reiner merely describes a system (Fig. 1) which uses a signal carrying information in a number of modulated frequency bands, which are designated as Fg and Fa. Reiner, Fig. 1; paragraph 47. The first frequency band (Fg) is used to communicate basic information (g) such as speech information that is modulated onto an RF carrier frequency. Reiner, paragraph 40, lines 5-9. The second frequency band (Fa) contains wake-up information (a) that is used to switch a receiver from a standby mode to an operating mode, in which the basic information (b) can be received and processed. Reiner, paragraph 40, lines 9-13. In other words, the wake-up

information and the basic information are transmitted in separate frequency bands. As a specific example, Reiner states that the frequency band (Fg) for the basic information (g) may range from 869.7 MHz to 870.0 MHz. Reiner, paragraph 20. In contrast, the frequency band (Fa) for the wake-up information (a) may range from 869.4 MHz to 869.65 MHz. Reiner, paragraph 28. From this example, it can be understood that the separate frequency ranges (Fg and Fa) do not overlap and, therefore, do not use a single frequency band for both basic information and wake-up information. Furthermore, Reiner enumerates several advantages of using separate frequency bands for the basic information (g) and the wake-up information (a). These advantages include continuous data interchange, less complicated validity testing, and less power consumption. Reiner, paragraph 14. Therefore, Reiner does not disclose a data frame with a preamble (including the sequence) and a payload within a single frequency band because Reiner requires that the basic information and the wake-up information are transmitted in separate frequency bands.

For the reasons presented above, Reiner does not disclose all of the limitations of the claim because Reiner does not disclose a data frame with a preamble (including the sequence) and a payload within a single frequency band, as recited in the claim. Accordingly, Applicants respectfully assert claim 1 is patentable over Reiner because Reiner does not disclose all of the limitations of the claim.

Independent Claim 7

Applicants respectfully assert independent claim 7 is patentable over Reiner at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 7 recites “a RF stage for detecting a sequence in a signal received by the wireless station and for generating an activation signal in response to detecting the sequence wherein the signal comprises a data frame with a preamble and a payload within a single frequency band, and the RF stage is configured to detect the sequence within the preamble of the data frame” (emphasis added).

Here, although the language of claim 7 differs from the language of claim 1, and the scope of claim 7 should be interpreted independently of claim 1, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 1

also apply to the rejection of claim 7. Accordingly, Applicants respectfully assert claim 7 is patentable over Reiner because Reiner does not disclose a data frame with a preamble (including the sequence) and a payload within a single frequency band, as recited in the claim.

Independent Claim 14

Applicants respectfully assert independent claim 14 is patentable over Reiner at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 14 recites “wherein the signal comprises a data frame with a preamble and a payload within a single frequency band, and the RF stage is configured to detect the sequence within the preamble of the data frame” (emphasis added).

Here, although the language of claim 14 differs from the language of claim 1, and the scope of claim 14 should be interpreted independently of claim 1, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 14. Accordingly, Applicants respectfully assert claim 14 is patentable over Reiner because Reiner does not disclose a data frame with a preamble (including the sequence) and a payload within a single frequency band, as recited in the claim.

Dependent Claims

Claims 2-6, 8-13, and 15-20 depend from and incorporate all of the limitations of the corresponding independent claims 1, 7, and 14. Applicants respectfully assert claims 2-6, 8-13, and 15-20 are allowable based on allowable base claims. Additionally, each of claims 2-6, 8-13, and 15-20 may be allowable for further reasons.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the amendments and the remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

/mark a. wilson/

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Mark A. Wilson
Reg. No. 43,994

Wilson & Ham
PMB: 348
2530 Berryessa Road
San Jose, CA 95132
Phone: (925) 249-1300
Fax: (925) 249-0111